UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,413	08/03/2000	Christophe Berthaud	ICB-0027	9595

7590 11/04/2002

Richard K Robinson
Attorney at Law
North Dallas Bank Tower Suite 1202
12900 Preston Road LB 41
Dallas, TX 75230

EXAMINER	
WANG, JIN-CHENG	
ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 11/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/631,413	BERTHAUD, CHRISTOPHE	
	Examiner	Art Unit	
	Jin-Cheng Wang	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-5, 11-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Olsen U.S. Patent No. 6,137,479.

3. Claim 1: *A watch including display means for at least one item of time related data and having an at least partially transparent outer element covering said display means or forming an outer portion of these display means, said watch including first control means for controlling the movement of cursor on a computer screen, said first control means being formed of a plurality of touch sensitive sensors whose respective sensitive pads are supported at least partially by said outer element.*

The Olsen reference has taught a watch 54 including display means for at least one item of time related data and having an at least partially transparent outer element covering the display means (figures 4 and 5). The Olsen reference has taught a watch including control means for controlling the movement of cursor on a computer screen and touch sensitive sensors are built into the watch to provide the computer mouse functions, i.e., the mouse watch can be used to detect the cursor movement on the display screen 26 (see also column 5, lines 42-67, and column 6, lines 1-34, and the related claims).

Claim 2 recites all the limitations of claim 1 and adds the limitation of "watch crystal." The Olsen reference has taught an outer element such as the cover for the watch (see figures 4-5). Furthermore, any conventional watch would require a cover to protect it from scratches, and the cover could be made from various materials including crystal as an outer element taught by Olsen in figures 4-5.

Claim 3 recites all the limitations of claim 1 or 2 and adds the limitation of "first means is supported by the outer element." The Olsen reference has taught that the first means is supported by the outer element, i.e., the cover or surface for the watch as shown in figures 4-5 (column 6, lines 1-34).

Claim 4 recites all the limitations of claim 1 or 2 and adds the limitation of "a part of sensitive pads is arranged in the top portion of the case." The Olsen reference has taught in figures 4-5 a cover of watch that protects sensors from scratches (column 6, lines 1-13).

Claim 5 recites all the limitations of claim 1 and adds the limitation of "sensitive pads arranged in the shape of a matrix." The Olsen reference has taught a watch with multiple sensors

arranged to generate signals to control the position of the cursor on the display screen (column 6, lines 1-13). The Office interprets that multiple sensors can be arranged in the shape of matrix.

Claim 8 recites all the limitations of claim 5 and adds the limitation of "the movement of cursor corresponds to the path taken by the user's finger." The Olsen reference teaches in figures 4-5 the surface area of the watch to generate signals to control the position of the cursor on the display screen (column 6, lines 1-13). Since the user's finger can move upon the watch's surface area, the path taken by the user's finger corresponds to the cursor's movement across a display screen.

4. Claim 11 recites all the limitations of claim 1 and adds the limitation of "second control means." The Olsen reference has taught a second control means such as the trackball 70 or keys 64 that has incorporated into the mouse watch device of figure 4.

Claim 12 recites all the limitations of claim 11 and adds the limitation of "the second control means arranged in the top portion of case." The Olsen reference has taught the second control means are arranged in the top portion of the watch (figure 4).

Claim 13 recites all the limitations of claim 11 and adds the limitation of "the second control means formed by touch sensitive sensor." The Olsen reference has taught a second control means such as the trackball 70 is rotated to move the cursor on the display screen 26 are formed by touch sensitive sensor (column 6, lines 1-34).

Claim 14 recites all the limitations of claim 11 and adds the limitation of "second control means arranged in a link of the wristband of the watch." The Olsen reference clearly teaches a second control means arranged in a link of the wristband of the watch (column 6, lines 1-34).

Claim 15 recites all the limitations of claim 11 and adds the limitation of "second control means formed by a push-button." The Olsen reference has taught a second control means such as keys 64 that are formed by a push-button (column 6, lines 1-34).

Claim 16 recites all the limitations of claim 11 and adds the limitation of "second control means formed by a pressure sensor." The Olsen reference has taught a second control means such as trackball 70 formed by a pressure sensor (column 6, lines 1-34).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen et al. U.S. Patent No. 6,137,479 in view of Teres et al U.S. Patent No. 6,184,871.

Claim 6 recites all the limitations of claim 5 and adds the limitation of "means for detecting the actuation frequency of successive sensors." The Olsen reference teaches in figures 4-5 a watch 54 as a pointing device having a display and controls like a conventional watch and a person wears it like a conventional watch. Sensors are built into the watch to provide the computer mouse functions. However, Olsen is silent on means for detecting the actuation frequency of successive sensors.

The Teres reference teaches a watch with means for detecting the activated sensor representing the greatest variation of electrical quantity comprising conversion means of the total capacity of the set of the fixed capacitor and the parasite capacitor of each capacitive sensor A to

S into an output signal having a frequency proportional to this total capacity (column 3, lines 24-37).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated the means for detecting the actuation frequency of successive sensors of Teres's watch device in the watch device of Olsen to generate signals for the control of a cursor on a display screen in accordance to the fingertip's movement speed. One having the ordinary skill in the art would have been motivated to do this to considerably simplify the process of identifying a manual action on a surface formed by a finger.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen et al. U.S. Patent No. 6,137,479, in view of Teres U.S. Patent No. 6,184,871, and further in view of Ferrari et al U.S. Patent No. 6,392,636.

Claim 7 recites all the limitations of claim 6 and adds the limitation of "the ratio between the movement of cursor and the path." Olsen in view of Teres teaches all the limitations of claim 6. However, the references are silent on the additional limitation as recited in claim 7.

Ferrari teaches a portable device having a display screen by providing an electrical output signal for selectively controlling movement of a cursor across the display screen. Ferrari further teaches capacitive sensing cells arranged in a row/column array top to produce output signals for control of cursor movement in both a row direction and an orthogonal column direction. Ferrari also teaches the horizontal and vertical direction such as the two X and Y array outputs being proportional to the zero and first moment of the 2-D pattern (column 11, lines 32-41 of the Ferrari reference). Therefore, Ferrari has taught that ratio between the movement of cursor and

the path taken by a user's finger across an outer element is less at low speed or actuation frequency than at relatively high speed or actuation frequency.

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated the additional means of cursor movement of Ferrari in the watch device of Olsen in view of Teres to control a cursor on a display screen in accordance to the fingertip's movement speed. One having the ordinary skill in the art would have been motivated to do this to provide a more sensitive or high precision control to the cursor movement across a display screen.

8. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen et al. U.S. Patent No. 6,137,479 in view of Teres U.S. Patent No. 6,184,871.

Claims 9-10 recites all the limitations of claim 1 and adds the limitation of "concentric zones." Olsen discloses a mouse watch with cursor movements as claimed. See figures 4-5 and respective portions of the specification. However, it is silent on the concentric zones, although the mouse watch could have made of an array of sensors forming concentric zones.

Teres et al. teaches a wristwatch device having concentric zones as shown in figure 3.

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated an array of sensors forming the concentric zones as taught by Teres in the wristwatch device of Olsen to control a cursor on a display screen relative to the mid-position on the top surface of the watch's display. One having the ordinary skill in the art would have been motivated to do this to provide two different touch-sensitive zones for high precision cursor control.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen et al. U.S. Patent No. 6,137,479.

Claim 17 recites all the limitations of claim 16 and adds the limitation of "pressure sensor formed by a piezoelectric crystal." Olsen discloses a mouse watch as claimed. See figures 4-5 and respective portions of the specification. However, it is silent on "pressure sensor formed by piezoelectric crystal".

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated a piezoelectric crystal in the pressure sensors of Olsen since any conventional watch would require a cover to protect it from scratches, and the cover could be made from various materials including a piezoelectric crystal as an outer element taught by Olsen in figure 4.

One having the ordinary skill in the art would have been motivated to do this to provide reasonable light and/or semi-transparent material such as a piezoelectric crystal as the cover of the watch for the protection of the sensors inside the portable watch device.

10. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen et al. U.S. Patent No. 6,137,479, in view of Teres et al U.S. Patent No. 6,184,871.

Claim 18 recites all the limitations of claim 11 and adds the limitation of "second control means formed by micro-contactor or small travel contactor." Olsen discloses a mouse watch as claimed. See figures 4-5 and respective portions of the specification. However, it is silent on "second control means formed by micro-contactor or small travel contactor."

The Teres reference teaches a second control means such as push buttons or any other new control devices that may be replaced by other sensors (column 5, lines 4-16).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated second control means formed by other sensors such as a micro-contactor or small travel contactor of Teres in the portable watch device of Olsen because the construction of minuet sensors formed by micro-contactor or small travel contactor are well known and widely used in the computer pointing device art. One having the ordinary skill in the art would have been motivated to do this to provide additional control means for the portable watch device.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Bisset et al. U.S. Patent No. 5,543,588 discloses a handheld computing device with a touch sensitive object position detector.

b. Bunsen U.S. Patent No. 6,211,860 discloses a mouse watch to control the movement of the cursor on the display.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (703) 605-1213. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 308-6606 for regular communications and (703) 308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 395-3900.

jcw
October 30, 2002

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600